



**DRAFT Meeting Minutes**

**HANFORD ADVISORY BOARD (HAB, Board)**

**Full Board Meeting**

*December 15 and 16, 2021*

*Virtual Meeting via Microsoft Teams*

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*This is only a summary of issues and actions discussed at this meeting. It may not represent the fullness of represented ideas or opinions, and it should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.*

## **Opening**

Ruth Nicholson, HAB Facilitator, welcomed meeting participants and notified the participants that the meeting was being recorded.

Steve Wiegman, Public at Large and HAB Chair welcomed participants and provided opening statements.

Stan Branch, US Department of Energy (DOE), announced that this meeting was being held in accordance with the Federal Advisory Committee Act. He stated that the HAB's role was to provide policy-level advice and recommendations regarding DOE Environmental Management (DOE-EM) site-specific issues.

Steve Wiegman provided an overview of the meeting ground rules, which he noted to be the same as they would be in an in-person environment; he asked that participants show the same level of respect in the virtual environment.

Ruth provided an overview of the meeting agenda. As an explanation for the Environmental Management Site-Specific Advisory Board (EMSSAB)-related entry in the agenda, she explained that the HAB was technically a committee of the national EMSSAB. She noted that the action items on the agenda were more numerous than would be typical, and as a result, HAB member participation was critical.

### *Meeting Minute Adoption*

Meeting minutes for the July and September 2021 Board meetings were adopted without comment.

## **Tri Party Agreement (TPA) Agency Updates**

### *US Department of Energy Update*

Brian Vance, DOE, introduced himself and thanked the HAB for the opportunity to speak. As there were new members on the Board, he provided some background and Hanford Site history. He stated that Hanford was a 580-square-mile site established in conjunction with the Manhattan Project, where operations continued through the Cold War.

Brian explained that, through its national defense mission, the Hanford Site produced approximately 74 tons of plutonium. This mission consisted of two distinct eras: the World War II and post-war era, from 1944-1955, and the subsequent Cold War Era, from 1947-1991. The result of this mission, and the reason for the environmental cleanup efforts that were underway, was over 45 years' worth of radiological and chemical contamination.

Since environmental cleanup efforts were started, six of the nine nuclear reactors have been cocooned, with one reactor—the B Reactor—being preserved as a national monument. Significant amounts of waste and contamination has been removed from the soil and groundwater, with a total of 674 tons of contamination removed from the groundwater, 27 billion gallons of groundwater treated overall, and 18.7 million tons of soil and debris excavated and moved to the engineered landfill. Most of the legacy facilities onsite have been demolished, totaling 932 facilities.

DOE serves as the owner and operator of the site. The site was divided into three primary areas: the Central Plateau, the River Corridor, and the Hanford Monument. It was noted that the Hanford Monument served as a safety buffer and was managed by the Washington Department of Fish and Wildlife. Few projects remained to be completed in the River Corridor, while most remaining projects, and the long-term operations going forward, were congregated in the Central Plateau. Overall, approximately 10,000

people worked on the site to advance the cleanup effort and to work toward safe and secure operations. Brian stated that the mission was exceptionally complex, both due to the technical aspects of cleanup and the regulatory environment, in addition to the number and diversity of interested groups and stakeholders.

Brian explained that DOE, as the site owner, focused on five main themes. First and foremost was the health and safety of the workforce. Following, was the transformation of site culture as work advanced towards waste treatment operations, which led into the goal of project delivery excellence. DOE strove to be a fair and demanding customer to its contractors in order to maximize taxpayer value for the work done on site, not only from a performance perspective but also a from the perspective of high ethical standards. Finally, DOE maintained the goal of exceptional teamwork across the entire site to ensure it could effectively execute its complex mission.

Moving on to DOE's pandemic management efforts, Brian stated that the operating conditions changed on a near daily basis, and DOE has done its best to create the safest possible environment for workers. Site operations were previously reduced, and, from that point, conditions were introduced to allow gradual, safe reentry. The reentry process continued week by week. At that point in time, the site was at an approximate 60:40 on site to telework split. He stated that the COVID-19 pandemic affected nearly every project on the site, but despite that, impressive progress was delivered. He stated that the vaccine mandate imposed on federal contractors had no negative impacts to operations. The site was implementing Centers for Disease Control (CDC) guidelines and was working toward personnel reentry to onsite work, with milestone dates for that effort through January and February of 2022. However, DOE would continue to monitor case rates, stay engaged with the community, and remain flexible to ensure safety and continuation of operations.

Moving to project progress, Brian stated that the Direct-Feed Low-Activity Waste (DFLAW) project was moving to startup phase and recently conducted a successful loss of power test. Bechtel National, Inc. (BNI) would improve its operations going forward based on the lessons learned during the test. BNI continued to hire and train technicians and recently announced its first fully trained team of technicians. He reviewed project photos, including the canisters that would be filled and transported to the Integrated Disposal Facility (IDF), the constructed Effluent Management Facility (EMF), the new reverse osmosis system installed in the Effluent Treatment Facility (ETF), and the IDF itself, which was ready to support DFLAW operations.

The Tank-Side Cesium Removal (TSCR) project has been certified to go into operations. He stated that he was excited about the major accomplishment, as TSCR would provide industrial-scale tank waste treatment to the Hanford Site for the first time. TSCR was expected to begin operations the following month, with the intention of having a million gallons of waste treated when DFLAW hot operations began.

Brian provided a brief overview of the phase gate process that was implemented on the DFLAW project, which was a project management framework based upon lines of inquiry (LOI). Under the phase gate process, each contractor was required to measure its readiness against a set of criteria before each "gate" could be passed. The second gate was recently passed, which established readiness to move toward the first melter heatup. Late January to early February was targeted for that milestone. The process was intended to ensure that all contractors, infrastructure, and parts were ready at each stage of the project and ensure that the site would operate as an integrated entity.

Brian provided an overview of the DFLAW program as a whole. He reviewed the "day in the life" of DFLAW operations, following waste from the starting point to final disposition. He noted that the graphic would be available as a placemat for participants to review later.

Covering other risk reduction efforts, Brian explained that the Plutonium Finishing Plant (PFP) demolition was effectively complete. A clean soil cap was placed over the former facility site and the project as a whole was reduced to a few administrative punch list items. There were no further workforce actions. The 242-A Evaporator work was progressing well, and its first campaign was anticipated to begin in early 2023. K West Basin characterization was continuing. Civil work in K East was progressing well, with construction anticipated the following calendar year to put the first reactor into interim safe storage. The 200 West Pump and Treat Facility continued to do a high volume of work and proved to be a good value as it significantly reduced the risk to the Columbia River in the near and long term. At the 324 Building, roughly one-fourth of the intended micropiles were installed. He stated that the mockup facility served the project well and that lessons learned were well implemented. He was optimistic of for the project.

For site infrastructure, groundbreaking took place for a new Central Plateau water treatment facility, intended to replace an aging water treatment facility and reduce risk. A new multi-craft maintenance facility was constructed to replace several smaller workshops, allowing work to advance in a more efficient and effective manner while retiring aging facilities.

The proposal due date for the Integrated Tank Disposition Contract was moved out slightly. The contract was intended to integrate the Tank Operations Contract and Waste Treatment and Immobilization Plant operations. It was a single-award Indefinite Delivery/Indefinite Quantity (ID/IQ) contract type based on the End-State Contracting model, with a \$45 billion contract ceiling over a 10-year ordering period.

Brian stated that DOE continued to engage with stakeholders. He reviewed a graphic representing the variety of site stakeholders and interested parties, which included federal agencies, state institutions, tribes, and a broad selection of interested parties, in addition to the site tenants such as Energy Northwest, Bonneville Power Administration, and the Laser Interferometer Gravitational-Wave Observatory (LIGO).

He reviewed a site photo in relation to the “big picture” for the year 2022. He noted points of interest and locations of projects reviewed earlier in the presentation. He felt that, based on the progress made in 2021, he was excited for the work that could be achieved in 2022.

Brian stated that he appreciated Steve Wiegman’s opening comments. He felt that strong teamwork was at the center of work DOE and its contractors were able to achieve over the past several years, despite the challenges faced. He stated that teamwork was only possible where everyone worked together and respected one another, despite the potential for differing opinions or viewpoints, in an environment of dignity, respect, and professionalism. Brian noted that he signed a letter in conjunction with other TPA agency representatives to affirm such expectations of the HAB. He stated that it came to his attention that some members have felt inhibited as to what could be communicated due to counterproductive behaviors seen over the prior six to seven months. He recognized that the cleanup effort was challenging, but it was important to ensure that the diverse perspectives of everyone “at the table” were heard in order for the TPA agencies to make the best possible decisions in a complicated environment. He stated that DOE would continue to act with noble intent, as he hoped DOE has demonstrated. He hoped that would be a point of focus for the HAB presently and going into 2022.

He stated that he appreciated the work the HAB did and hoped that, as the HAB continued to adapt its focus with the site evolution, that the HAB remember that the TPA valued input as policy-level advice the most. He wanted the HAB to understand that the operations would be tough to keep up with considering the pace of HAB operations, and as a result, an operations committee might not be constructive.

In closing, he stated that he was optimistic for the future, stating that the site was well positioned for a successful 2022 and beyond. DOE would continue to provide the safe and efficient progress and value that the taxpayers deserved. DOE would continue to maintain an aggressive communications approach with stakeholders. He was hopeful to be hosting site visits in 2022 to reacquaint folks with what has been accomplished in the prior few years on the site. He felt that, though project pictures could be shown, that some aspects such as the maturity of the teams and operations were not fully communicated through pictures alone.

#### *US Environmental Protection Agency (EPA) Update*

David Einan, Environmental Protection Agency (EPA), introduced himself and welcomed the new HAB members, noting his appreciation for their commitment. He stated that there were few EPA-centric messages to report. He stated that EPA did not yet have a new regional administrator and deputies continued to serve in that capacity in the interim. He reminded everyone that a functioning board consisting of diverse voices was especially important and valuable and that EPA would continue to support it.

#### *Washington Department of Ecology (Ecology) Update*

David Bowen, Washington Department of Ecology (Ecology), stated that as of that day, he completed his first year in his current role as the Nuclear Waste Program Manager for Ecology. He echoed the comments of Brain Vance and David Einan, thanking the Board members for their participation.

He stated that Ecology was continuing recruitment efforts and presently had approximately 20 vacant positions to fill, representing about 25% of the program. Those were a priority for Ecology in order to train the personnel that would be filling the positions for the purpose of knowledge transfer and mentoring. He stated that was critical for long-term success. He explained that Ecology maintained and implemented core values of Diversity, Equity, Inclusion, and Respect (DEIR), with each Ecology employee being expected to become familiar with and demonstrate those values. Additionally, those values were implemented into Ecology's recruitment efforts.

Ecology conducted a wide array of outreach and education efforts, including visiting schools and science related events, as well as conducting "Let's Talk About Hanford" live broadcasts through WebEx and Facebook.

David Bowen explained that the Tri-Party agencies were continuing to meet and advance holistic negotiations, but due to a mediation agreement and to encourage open discussion, it was agreed amongst the Tri-Parties that the details and status would not be shared while negotiations were progressing. For new HAB members, he explained that the negotiations were based upon a notification Ecology received in January of 2020 that certain milestones were at risk of being missed. Negotiations were selected as a path forward, rather than taking the matter to court. He stated that the negotiations included discussion around the pace and timing of tank closure and waste treatment, including activities related to leaking waste tanks. Ecology had short-, medium-, and long-term thoughts on how to move forward, in that regard. He stated that the agencies agreed that something needed to happen on that topic, but discussions continued in regard to the specifics. It was expected that the public participation process would commence after the parties reached a tentative agreement, however, Ecology always considered public concerns and options in negotiations.

For Ecology's inspection activities, he noted that the department was ahead of its five-year goal. He reviewed the specific inspections conducted and compliance reports issued since the previous HAB

meeting in September 2021. He reviewed upcoming public involvement opportunities in relation to proposed permit modifications, noting that the comment period for a proposed update to a Waste Treatment Plant (WTP) permit was presently underway.

In closing, he reiterated his appreciation for those taking the time to attend the meeting and listen to the updates, including those participants outside of the HAB.

### *Board Questions*

Pam Larsen, Benton County, remarked that she was amazed with what had been accomplished and congratulated the agencies. She noted that she was particularly happy with the progress on the 324 Building and that the phase gate process graphic was helpful in clarifying the path forward. She stated that she was surprised by the potential budget for the following year and asked if someone could explain the context of Hanford's budget in the context of the DOE Environmental Management (DOE-EM) program. She worried that some HAB members might not understand the limitations in expanding that budget. She felt that the Tank Waste Committee (TWC) would benefit from hearing about what Ecology had looked at in regard to leaking tanks and what might be accomplished. She noted that she was also confused by a portion of Ecology's presentation related to amendments to the Hanford Site-wide Permit Revision 8c, noting that HAB provided advice on Revision 9.

Brian explained that there was nothing new in the budget process, stating that DOE-EM received approximately the same percentage of the budget every year, with approximately one-third of that amount being given to Hanford. He stated that Hanford's funding has been generous and high, noting that it was a complex site and working environment. DOE worked with regulators to identify risk priorities in allocating that budget, with worker safety coming first, the community second, and the environment third. DOE tried to do all three simultaneously, where possible. He stated that DOE would likely never get buy-in from all stakeholders of every decision, but it was an area where it did its best. He stated that DOE, and the Hanford Site, was always competing for funds against a nation of needs.

David Bowen explained that Revision 9 had been underway for a long time. It was presently in the application process for collecting data; it was expected that would be complete and "pencils down" in 2022. Regarding the leaking single-shell tank (SST) B-109, he stated that Ecology had a specific path in mind that considered what really protected the environment and took into consideration the infrastructure in place. He stated that the conversations were continuing, but he felt that the Tri-Parties were coming close to an agreement on that.

Tony Brooks, Benton-Franklin Health District, stated that he appreciated DOE's focus on maximum risk benefit. He noted that, when considering the radionuclide content of the waste tanks, cesium was the biggest risk. He was impressed by TSCR and was glad to see that the biggest risk and hazard to workers was being addressed. He stated that he was recently involved in writing a paper on the biology of the radionuclides in waste tanks and suggested that HAB members read it when it becomes available.

Gerry Pollet, Heart of America Northwest, referencing DOE's presentation slide on site stakeholders, stated that it was not appropriate to say that environmental interest groups were a "special interest," as that term typically referred to groups advancing interests of financial matters. He suggested revising the slide. In regard to the DFLAW slide, he noted that it showed a quantity of waste leaving tanks and a quantity of glass formed, however, for every gallon of waste from the tanks there would be a volume of secondary waste that must be disposed of. He stated that he has previously heard various estimates on the volume of secondary waste and asked for that to be clarified to the Board, if known. He stated that he was concerned by the lack of attention to B-109 and asked about the status of the tank. He noted that the

governor had received hundreds of comments on the subject and that he did not expect that the one-year anniversary of the leak being announced would pass without legal action being taken to enforce the requirement of the waste being removed from the tank to the extent feasible.

David Bowen noted that he gave an overview of the discussions being held about B-109 earlier. The Tri-Parties were considering opportunities and technologies, what was realistic, and when it could be done. He stated that the practicality of saltwell pumping was something that still needed to be sorted out and definitive conclusions for that option had not been drawn. He stated that they were aware of the comments to the governor and were working to come to an implementable solution. Brian stated that he would provide the waste stream information at a later time.

Shelley Cimon, Columbia Riverkeeper, thanked the presenters. She stated that COVID was a challenge for the Board. Where she hears tightness in the voices of the members discussing B-109, it was an indication that there had not been enough conversations on the subject. She hoped that subject matter experts would be able to discuss the topic in more detail going forward. She stated that she appreciated the timeline for workers returning to the site. She asked if the regulatory agencies were returning as well. Regarding the 324 Building, she asked if the estimates for the number of required micropiles were accurate or if fewer than expected would be required. Brian explained that, regarding regulatory agency access to the site, they were able to come and go as needed for inspections in compliance with safety plan requirements. Brian Stickney, DOE, stated that it was too early to tell if the number of 324 Building micropiles could be reduced, but that was being evaluated as the project progressed. The micropiles were being spaced to accommodate that option.

Chris Sutton, Public at Large, asked if there were any funds that might be used for Hanford in the “Build Back Better” bill. Brian stated that there were not, as far as he was aware.

Jan Catrell, Washington League of Women Voters, thanked the presenters, stating that she always looked forward to hearing highlights of accomplishments and the upcoming priorities. Regarding the Integrated Tank Disposition Contract, she noted that the contract value seemed exceptionally high at \$45 billion, amounting to over \$4 billion a year over the course of the contract. Brian explained that contracts were typically created with a generous cost ceiling and that particular contract included the scope of all tank farms and the work required to operate the Waste Treatment Plan, in addition to the ability to build on additional scope due to the ID/IQ structure. Additionally, there was potential to extend that contract for up to five additional years. The contract was overly generous to avoid the need to raise that ceiling later.

Steve Wiegman thanked the “heroes” that were making the project work and appreciated the teamwork being used to progress through challenging times. He hoped that would continue for the future of DFLAW. He reminded the HAB that it was just one of many parties on the “Ferris wheel” of interested parties and stakeholders and needed to ensure that its role was one that added more value than it detracted.

### **HAB Work Plan and Calendar for Fiscal Year 2022**

Gary Younger, DOE, noted that the topic of the HAB work plan and calendar was initially intended for approval in September. He provided an overview of the document and reviewed its content. In review of the HAB committee portion of the document, he explained that the committee were where most of the HAB’s work gets done. He encouraged new members to review that section and join a committee. He noted that the meeting dates in the document were just proposed meeting dates with the potential to change, however, they would try to adhere to those closely. In review of the calendar, he noted that the HAB facilitation team was also typically off on federal holidays.

Gary explained that the committee work plans were categorized by topic within each committee and provided a basic “game plan” of what the committees would talk about. He noted that the item numbers provided for each topic were arbitrary and did not imply importance or order.

### *Regulatory Perspectives*

Ryan Miller, Ecology, stated that Ecology staff were always happy to support the HAB’s work plan items to the extent possible, as well as topics of interest in general. Should the HAB have topics that it wished for Ecology to present on, Ecology would do its best to accommodate the request.

Roberto Armijo, EPA, agreed, stating that EPA would also support HAB requests, provided the appropriate lead time.

Ruth Nicholson cautioned HAB members, stating that it was best not to try to change topic requests at the last minute, as the agencies had extensive processes for getting presentations approved.

### *Committee Discussion*

Steve Wiegman stated that he wanted to ensure that the HAB’s energy was focused on the topics where it would be the most valuable for the TPA agencies. He asked that the HAB members recognize that the work plan was subject to change.

Ruth noted that there was an Issue Manager (IM) team in place to consider the HAB’s committee structure going forward.

Tom Sicilia, Oregon Department of Energy, noted that there were some instances where the HAB’s meeting dates changed from the draft work plan.

Ruth stated that the first action item for the following day’s meeting would be to adopt the work plan and calendar, so it was important that there was a quorum of 19 seats present. Gary noted that, were there no questions or objections, they could instead be adopted that same day, freeing up space for the next day’s meeting. Ruth called for a consensus of the seats on the subject.

The work plan and calendar were approved, pending minor corrections.

### **Public Comment**

Vince Panesko, City of Richland, stated that he found Brian Vance’s earlier presentation very helpful. He complimented DOE and the staff involved in creating the presentation.

### **Introduction of Draft Advice on Tank Leaks from the Tank Waste Committee (TWC)**

Jeff Burright, Oregon Department of Energy, provided an overview of the draft advice and the events leading to its development. Starting with the timeline of events, he explained that the initial notification of the B-109 tank leak was provided in April 2021. As details of that leak were provided, the Board learned that the tank was in an area where there were already significant amounts of other waste discharged to the soil, and as a result, extraction wells were present, so DOE had stated that the risk was minimal due to the nearby, active pump and treat system. In May, the TWC discussed what information was known, what information was needed, and potential strategies for dealing with the leaking tank. An IM team on the subject was formed in August, knowing that there was an upcoming board meeting, that developed the initial draft of the advice the Board reviewed in September. The Board decided not to take any action in September, so advice discussions consisted of feedback. Jeff felt that the feedback was generally positive but included some specific comments and concerns to work through for future drafts of the advice.



Jeff stated that the advice being presented was significantly revised and shifted focus to abating future leaks. He acknowledged the recognition that this advice, if passed, would not be the end of the conversation of B-109 or SSTs across the site, but the HAB hoped to “stake its claim” to be part of that ongoing conversation.

The main points of the revised advice started with an assertion of HAB values. It advised investment for proactive abatement of future leaks. It advised that a feasibility study be conducted for options to deal with B-109, which could then feed into and inform a formal leak mitigation plan for all the SSTs, and as part of the advice for that mitigation plan, the HAB advised that all stakeholders be included in that plan. The revised draft advice still discussed a need to develop agility with discussion of soil checking around the tanks for earlier discussion. The revised draft advice also included a recommendation for conducting a supplemental risk assessment to evaluate the cumulative impact of the potential scenario of all SSTs leaking.

### *Board Discussion*

Tom Galioto, Tri-City Development Council (TRIDEC), noted that he was not part of the IM team involved in creation and wanted to confirm the intention of the advice, asking if the advice points were targeted to actions that would assist the site going forward rather than advising immediate action. Jeff stated that was the intention, except for the point advising a feasibility assessment specific to the B-109 situation. However, Jeff explained, the information gained from that feasibility study could be applied going forward. He stated that the IM team recognized the difficulty in responding quickly to situations like the B-109, so it adjusted the tone of the advice to be more proactive, looking toward the future of the site.

Steve Wiegman stated that, based on Ecology’s earlier updates, it seemed that the regulatory agencies were treating the topic as a serious issue. As the agencies were nearing completion of their negotiations through a legitimate regulatory process and discussing the issue of the tanks in good faith, he felt that the timeliness of the advice should be considered. He suggested tabling the advice until they completed their ongoing negotiations, worrying that the advice, at that time, could be disruptive to their process. Further, Steve Wiegman noted that Gerry Pollet had mentioned that he or his organization was contemplating legal action. As Board chairman, Steve Wiegman did not want to put the advice forward if it had potential to be used in litigation or would involve the HAB in a process that it did not belong. He stated that he thought that the discussion of the SST issue was appropriate and that the IM team did a great job of putting the advice together but asked that the Board be patient on the issue, as the issue of SSTs would be with them for a long time.

Chris Sutton stated that he was concerned that the advice points did not seem to be written in the context of policy advice. He stated that the only aspects that seemed to relate to policy were aspects like agility, timeliness, and requirements for risk assessments, while the rest amounted to “do this.” He felt that they would benefit from reexamination and rewriting to be more policy related. Additionally, he felt that the background information could be condensed, as it felt repetitive in some areas. He clarified that he did not disagree with anything the advice said but wanted it to be reframed.

Richard Bloom, City of West Richland, noted that he was a discouraging voice to the advice as it was presented in September, and pushed for a point that was not present in the current draft of the advice. He wanted a program to address the three million gallons of liquid in the tank farms. He felt that the advice had the primary goal of telling DOE to become proactive in addressing liquid leaks from the tanks. Richard stated that he assumed every SST to be leaking; if it was not leaking that day, it could be leaking

the next. From a community standpoint, he felt that DOE would benefit from not having the press focus on leaking tanks. He wanted a program where tanks would be pumped of residual liquids before they leaked and redirected, without disrupting the overall tank farms program.

Gerry Pollet thought that, should people read the advice closely, they would see that it was focused first on the three million gallons of interstitial liquid across the tanks, which has begun to leak and would continue leaking. He felt that the Board should offer advice on the most fundamental policy of doing no harm. Second, the advice focused on the investment in abatement technologies and support a pilot test, as Ecology had proposed in December of 2020. He stated that the agencies' discussion on the matter had been going on for months and months, and were there not public pressure, those negotiations might have started even later. Regarding Steve Wiegman's earlier comment, he stated that there was nothing in the advice that could be used in a court of law and that the purpose of the advice was to avoid litigation altogether.

Susan Leckband, Washington League of Women Voters, stated that she appreciated the comments and work done to develop the advice. She felt that the background was thorough and that she learned a lot reading it, however, it was too long for the purpose of advice. She thought the Board should move forward with the advice but felt that it could wait until the next Board meeting to be further refined. She stated that she would like to see the results of agency negotiations and that the advice was not urgent. With further refinement, she expected that the advice could gain consensus approval. She stated that the agencies' ability to respond was directly related to the number of words to be responded to and that the advice should be shortened such that the actual advice was longer than the background information.

Marissa Merker, Nez Perce Tribe, stated that it was important for the TPA agencies to hear and understand what stakeholders were thinking as their negotiations were ongoing.

Pam Larsen stated that she participated in the IM team and shared her concerns with the advice but did not feel that those concerns were reflected in the draft presented. She felt that, as it was written, the advice was effectively asking for a blank check and that Congress would be unlikely to appropriate more money. She stated that she was interested in what Ecology was working on and did not feel that waiting a few more months would make a difference in the timeline of actions taken. She appreciated the work done, but felt the advice needed more refinement in order to get a favorable response from DOE and Congress.

Rob Davis, City of Pasco, felt that people had de facto accepted DOE's position of letting SSTs leak because the risk of those leaks were lower than other site risks. He stated that the Board needed more information to understand why DOE felt that the risk was low and specifically asked for information on the isotopes present in the leaking waste.

Esteban Ortiz, Greenlatinos, stated that, based on this discussion, that the timeline for action was effectively non-existent. He agreed with previous mentions of the advice being too wordy; in his experience writing to elected officials, they typically preferred to see succinct messages, typically bullet points. He hoped for the TPA agencies to ultimately do what was best for the future of the area and communities.

Liz Mattson, Hanford Challenge, felt that there needed to be more space for the Board discussion, indicated by the advice reaching another full Board meeting with considerable controversy. She stated that she was part of the IM team calls, but that was not possible for everyone. She noted the variety of concerns expressed about the advice, stating that it needed to be discussed further.

Marissa noted that, regarding cost of implementing the advice, that the no-action alternative would later consist of both retrieval and remediation. She wondered how that would compare to the research and

development costs required to develop rapid response capabilities and thought that needed to be examined.

Bob Suyama, Benton County, stated that based on the statements made, it seemed that the advice needed to be taken back to TWC for further consideration. He noted that David Bowen suggested that the results of the discussions between DOE and Ecology could be available in the January to February timeframe, so he hoped that that topic could be added to TWC's February agenda. He hoped for HAB members to read the advice and provide specific recommendations as to where it could be cleaned up, particularly regarding reducing the size of the background information. David Bowen confirmed that advice points two through six were specifically being addressed in Ecology's discussions with DOE.

Richard stated that he appreciated the comments made. He stated that he personally questioned some of the items being asked for and would prefer to see advice focused on getting field activities done. He suggested the advice be trimmed with focus on getting field activities planned and implemented, with the intention of proactively mitigating leaks. On a different subject, he noted that he was rotating off the Board in the coming year and that he was attending what would likely be his last HAB meeting.

Robert Waldher, Umatilla County, provided his perspective as a new HAB member. He felt that the advice background was both helpful and reasonably concise.

Ruth Nicholson noted that there were a few different options for the advice path forward, such as revising it that night for review of the following day or tabling it for a later meeting.

Gerry stated that it was important that HAB members take the time to read the advice. He stated that, though the background could be shortened, it was valuable as education for both the HAB and the public; the advice was not just for the TPA agencies.

Steve Weigman suggested that, as the TPA agencies were already discussing most of the issues, he felt that the HAB was obligated to allow them to continue their discussions, as it sounded like they would be concluding soon. He felt that the advice was important and did not want it to be rejected due to timing.

Denise Jones, Citizens for a Clean Eastern Washington, stated that she appreciated the work done by the IM team. As a new member she was unsure of the scrutinization process but felt that the background and advice bullets were clear as written.

Emmitt Jackson, Non-Union, Non-Management Employees, noted that there was no guarantee that the TPA agencies would come to an agreement or a decision. He suggested that the advice go back to committee to incorporate the suggested changes.

Bob asked that the advice revision, along with results of DOE and Ecology's discussions on the matter, be added to the next TWC agenda. Gary Younger stated that he would provide that information, if available.

Jan Catrell stated that the advice was an example of technical advice that brings together the HAB values. She felt that, if the TPA agencies did not rush to take care of the issue, it was incumbent for the Board to say something about it. She felt that the advice could go forward without the information from the agencies' discussions and regardless of their results, as it demanded they characterize and take action. She also noted that it was an example of "sausage making" in virtual meetings, but noted that with the lack of face-to-face interactions, an important aspect was lost. She felt that it did not behoove the HAB to wait for the agencies to "get their ducks in a row."

Tom Sicilia stated that, should the advice go back to committee as-is, it would suffer from “bring me a rock syndrome.” He suggested that the Board go through it line by line for editing and suggestions in order to provide the TWC with more specifics to work from.

Susan reminded the Board that there were Ecology and DOE representatives in the meeting and already knew where the Board stood on the issues presented as a result of the discussion being held. She stated that advice being delayed was not something to think of as a failure. Conversations of that sort were something that the Board did well and were just as valuable as advice.

Richard stated that, rather than going through the advice line by line, it would be more practical to go through the advice points to see which were acceptable or objectionable. It would be more illuminating to see which the Board could live with, which was key for consensus.

Steve Anderson, Grant and Franklin Counties, stated that he appreciated the perspectives from those that contributed. He felt that the Board should give itself credit for the work done to that point and did not feel that it was far from a solution. He hoped that the agency representatives were listening and that the Board’s ideas would take hold but did not expect that it was a guarantee; he wanted the Board’s views in writing.

Ruth suggested that, as the HAB work plan and calendar were adopted a day early, that time be allocated to discuss thoughts and ideas on the advice points.

#### **Review of Draft Advice on Tank Leaks**

On the second day of the meeting, the Board revisited the draft advice to discuss the advice points and determine next steps.

Bob Suyama explained that for the TWC to be able to reflect the feelings of the Board quickly and accurately, they would discuss a plan of action going forward. He stated that, during a normal meeting, members would have the advice in front of them to read; he did not feel that all members read the new version of the advice based on the discussions the prior day. He wanted to ensure that all members had a chance to read the updated advice, noting that the comments and input from the previous Board meeting was incorporated, then he wanted to see if members felt that it was valuable advice to pursue.

Bob noted that Richard Bloom expressed that, from his perspective, all SSTs should be considered leaking. The tanks were built in the 1960s; by the time they were recovered in 2040, they would be nearing 100 years old. Bob explained that the advice was the start of a discussion that stated that there needed to be a plan for those tanks, and that plan was something that the HAB needed to determine in this discussion so the TWC could move forward with the advice.

Ruth noted that Steve Wiegman preferred to hold round robins for advice and asked if that would be an acceptable way to move forward. Steve Wiegman stated that, when discussing the draft advice the previous day, he saw that as an opportunity for the Board to educate itself on what the issues were, particularly for the benefit of new members. He hoped to go through the advice point by point, and as they did so, for those involved in development to describe their goal in simple terms so everyone could understand.

Jeff Burright led with the first advice point. He stated that they wanted to start with a value. In the background it was stated that, per the HAB values developed in 2012, the HAB holds the value of do no harm during cleanup. This advice point provides the HAB’s value specific to SSTs leakage: the value of assessing leaks in a timely manner to understand not only if they are leaking, but understanding the risk associated with the leak, as well as abating and responding to SST leaks. He noted that the word abate could mean getting ahead of the issue or stopping a leak once it began, assuming there was the ability to

respond. He noted that there was also an inclusion of “to the extent feasible,” as they recognized that it was not an easy thing to do, but that it should be a policy goal for the Hanford mission. It also discussed the need to make decisions quickly when it came to abating harm from a leak and included the public involvement value, asking for a formal comment opportunity on response options.

Jan Catrell noted that there were many comments about the number of words in the discussion the previous day. She felt that advice point one encompassed multiple potential advice points: assessment, mitigation, and public comment opportunities. She noted that she would consider the advice from that perspective, examining how many topics were encompassed by each advice point.

Pam Larsen stated that she was concerned over the potential cost of the advice actions. She wondered what might be given up implementing that advice due to cost. She also wondered what part of the advice is intended to come first when acting on it, noting that it seemed to be the development of retrieval technology. She felt that might need to be clearer, if not an advice point. She considered that an incremental approach to addressing leaks might be best.

Rob Davis identified some of the primary issues to be addressed. First was the length of time it takes to respond. He noted that any tank farm manager was bound not to let their product leak to the environment, yet that was allowed at Hanford. He thought that response needed to be sped up. The understanding of risk was another; he wanted to know why the risk was believed to be low enough that the tanks would be allowed to leak until eventual retrieval. He thought that the value of addressing leaks in a timely manner was a worthwhile advice point and was a vital component of proper waste management.

Gerry Pollet felt that Pam’s comments on time and budget were good contributions to the draft advice development but thought those were resolved in the current draft with advice point #3, which called for a feasibility study. He suggested adding further clarification, asking for that study to examine cost, budget, and timelines. Pam stated that would be a helpful addition.

Chris Sutton felt that the request for timely action seemed contradictory when asking to lead with a feasibility study. Jeff explained that the intended point was that the feasibility study would inform the SST plan going forward, so SST leaks could be responded to in a timely manner when established. It was a one-time cost.

Richard Bloom commented that he preferred advice that put field work over paperwork, such as a feasibility study. He noted that approximately 10% of the Hanford Site workforce worked in the field, stating that those fieldworkers accomplish everything, while the rest push paper. He felt that, for the HAB to assist in mitigating the issue, they needed to advise that the agencies take action to mitigate the issue rather than study the issue. Richard still supported advice points #2 and #5.

David Reeploeg, TRIDEC, questioned the timing of submitting the advice. He felt there was value in waiting to see what the agencies would decide as a path forward following their ongoing negotiations. However, he thought that advice points #2 and #3 might still be timely, and potentially some variant of #5; he did not want to provide broad advice without knowing the agencies’ intentions. He stated that, as they all knew, the end goal was getting waste out and treated. Anything that distracted from that larger goal was something that the HAB needed to be careful about, as the site was not in a position of unlimited resources. David wanted to be cognizant in that regard to ensure the HAB did not issue advice that might detract from the site’s long-term goals.

Steve Wiegman, following up on David’s comments, wondered if the HAB should begin considering options for accelerating the retrieval and closure of tanks, stating that by closure, he meant complete closure, rather than leaving them in an interim state until collapse.

In response, Gerry stated that advice point #4, development of a leak mitigation plan, was envisioned as looking at which tanks were at the greatest risk of leaking and determining the actions that could be taken proactively, rather than just responding to leaks. He noted that David Bowen previously expressed his surprise that there was not a permit requirement for a leak mitigation or response plan, as many HAB members were surprised to learn. Regarding the acceleration of waste retrieval, Gerry felt that discussion would align with the supplemental waste treatment topic, an entirely separate discussion track. To influence the acceleration of tank waste retrieval, he felt that the HAB should consider advising accelerating the timeline for supplemental waste treatment, which might otherwise not even be considered until the 2040 to 2050 timeframe, judging my comments on the related Government Accountability Office (GAO) report. Steve Wiegman agreed and hoped to pursue that discussion within the HAB going forward.

Chris thought it would be beneficial for the tank waste retrieval program to have flexibility in relation to DFLAW; should a tank be suspected a leaking, it should have priority in treatment.

Liz Mattson stated that her organization, Hanford Challenge, did not support grout-based supplemental treatment at that time and instead wanted vitrification in operation before considering additional treatment types, which might not be needed. She stated that Hanford Challenge would not support advising acceleration of grout-based supplemental treatment at that time.

Steve Wiegman stated his believe that, if SST retrieval was not accelerated toward total closure, the legacy of the site would instead just be that they were argued over for a long time. He worried that were a tank to totally collapse, it may just be filled with grout in-place, which was not the optimal path. He acknowledged that retrieval acceleration and supplemental treatment were different topics of discussion than the draft advice being considered, but they were all interrelated.

Robert Thompson, City of Richland, noted that regarding SST leakage, there would always be reason to worry. However, as approximately 54 million gallons of liquid waste say on site, he felt that the HAB's priorities were not aligned with what he felt the primary issue around supplemental treatment was. He worried there was "not enough money in the world" to continue the glass log project, nor did that project account for the volume of liquid waste on site, which was why supplemental treatment needed to be considered. Despite knowing that there were those with a vested interest in not having grout, he felt it was in the best interest for the local community stakeholders, as they would be the ones directly impacted by the results. As the liquid waste content was reduced, the safety of the surrounding communities went up dramatically. He was concerned that the overall concerns of the site were not being considered in the advice and wanted the group to understand that any advice given needed to be based in reality, as every dollar needed to implement advice would need to be drawn from other projects. He did not want the HAB to "get lost in the noise" when addressing larger issues.

Bob stated that supplemental treatment was an important discussion, but there was already an IM team considering the topic. He asked to redirect the discussion to the draft advice under consideration and suggesting continuing to go through the individual advice points.

Rob Davis suggested breaking up the advice into parts that could be done in the short-term versus long-term. Regarding the site budget, he wondered if there would be available budget to address worst-case scenarios for the tanks. He felt that preventative measures needed to be taken to prevent that.

Jacob Reynolds, Non-Union, Non-Management Employees, stated that he was in favor of the advice. Though many were concerned with the advice timing, he felt that it was worthwhile to express the feelings of the Board. Though he agreed with DOE's statements that there was little to be done to address

the tanks in the present, he and many others on the Board did not agree with DOE's apparent lack concern with additional contamination of the site. He wanted the advice to advance to express the values of the Board and those of the community.

Tony Brooks pointed out a sentence from the draft advice: "Action to abate the harm from the leak must not be delayed by lengthy processes." He stated that they did not know if there would be harm from the leaks, and if there was, it would not be immediate—it would be approximately 100 years in the future. He was concerned that the draft advice was trying to use that idea of harm from the leak to scare people into doing something that might not be needed.

Dan Solitz, Oregon Hanford Cleanup Board, noted that the technical readiness of grout was unknown at the time and would not be known until after the Test Bed Initiative (TBI) was completed. Regarding the draft advice, he felt it was worthwhile because leaks were already occurring and were expected to get worse with time. He wanted to take steps toward mitigating those leaks as the waste would be more expensive to retrieve and treat from the dirt than they would be in the tanks.

Pam stated that there was a lot of positive conversation over the advice, but clear disagreement among members. She suggested the advice go back to committee and potentially be sent out for review prior to the next HAB meeting. She noted that she did not support just pouring grout into tanks, but that was being considered by personnel in Washington DC, so the HAB would need to examine that eventually.

Steve Wiegman noted that the HAB was trying to develop consensus advice on a big topic and worried about perspectives being lost. He wondered if there could be a component to the advice that expressed the views of its members to acknowledge all the different perspectives on the issue. As he stated, "consensus mows the grass so everything looks the same."

For the benefit of new members, Ruth noted that there were Board products other than advice, such as sounding boards and white papers.

Tom Sicilia stated that, in the present conversation, he had not heard any objections to the idea of the draft advice bullets. He felt that there should be clarification on which points were accepted or objected to for the benefit of the committee. If there were no objections, however, there was consensus with clarity.

Jan stated that, as part of the consensus process, the draft advice needed to be narrowed down to the specific points that should go forward. She expected that many members had some commitment to certain parts of the advice, but it needed to be focused when determining how to write its next iteration. Too much would bog down people when it came to consensus; she felt the conversation wandered into grout because there was too much there. Additionally, she stated, focus would be beneficial for the TPA agencies it was submitted to.

Shelley Cimon agreed with Jan's proposal, stating that there should be a programmatic, overarching statement made such as "design a plan to build contingency and the ability to react, with agility, to future leaks." Under that overarching statement, the existing bullets could be explained in context of how they represent that overall goal. She felt that B-109 and T-111 represented the risk of future leaks, so the goal to be sought with the advice should be the ability to mitigate the next leak.

In consideration of options for the path forward for the draft advice, the Board decided to hold a round-robin discussion to provide the IM team additional information. Jan Catrell joined the IM team for future draft advice revisions.

### **Round Robin on Draft Advice**

Ruth Nicholson stated that the goal of the round robin was for members to answer the question of which advice points should be kept, in concept or as worded.

Esteban Ortiz stated that he felt that advice point #2 was the most important. He wanted to express that the federal and state agencies were communicating and applying common sense regarding the technology that could be used and ensure the risk-benefit of each option was considered.

Robert Waldher stated that, as he looked through the advice points, the question he considered was the cost of the work versus the cost of doing nothing, and not just cost in the financial sense. He felt that the background was effective in explaining the issue and expressing the severity of the issue. He felt it was difficult to endorse a path forward without understanding the full context, and as a result, supported advice point #3 to gain that understanding. Additionally, he supported advice point #5 as it addressed an issue he wanted to be recognized.

Chris Sutton supported advice point #1, with the exception of the last sentence. He supported point #3, should it be expanded to get the information in a timely fashion. Additionally, he supported #4 as it was, the first sentence of #5, and #8. He felt the others could be rolled into the leak mitigation plan.

Steve Wiegman stated that he generally supported the context of the advice points, but worried that the TPA agencies were discussing essentially all the same points and wanted to know the results of those conversations.

Susan Coleman, Public at Large, agreed with Steve. Having worked with DOE in the past, she was concerned about the number of documents that the draft advice was asking them to produce. Additionally, she was concerned about the cost implication of preparing those products getting in the way of work getting done on site. She wanted the advice to consider what was necessary in the short term versus what could be done in the future.

Max Woods, Oregon Department of Energy, supported the advice in concept overall. He noted that advice point #3 was questionable, as it seemed to be asking for more information for the purpose of advice formation. He wondered if there was another avenue for that information request instead. He felt that advice point #4 was the overall goal of the advice: a formal leak mitigation plan. The other points seemed like requests that would be a subset of that plan. He suggested making the advice more straightforward by rolling other advice points into #4. From his perspective, he stated that there was a need for a response plan and important that the public had input on that plan.

Jeff Burright followed into a point Max made, stating he was unsure if it was typical for advice to request additional information. However, he stated that he would argue for advice point #3 as it was not only the Board that needed more information on the subject, but the TPA agencies as well. It suggested that there were ways to communicate and support that request and supported a necessary understanding of the impacts of acting versus not. He stated that information was valuable when making difficult decisions. Jeff supported the advice points as they were.

Tom Sicilia supported the idea of giving the TPA agencies time to provide additional information. He suggested, were there no announcement by the March Board meeting, to submit the advice at that time to push negotiations. He was fine with allowing the agencies time to provide a timely response.

Dan Solitz supported all points. He felt that they supported the goal of taking a closer look at the issues surrounding SSTs, as there would be no avoiding them in the future.



Marissa Merker did not feel that any individual advice point was more important than another. She felt that the Nez Perce Tribe made its position on the issue obvious over the past couple, having issued comment after comment on leaking tanks. She worried that the Tribe's values were lost or overlooked in the process.

Michael Mays, Washington State University, stated that he found persuasive arguments on both sides of the discussion on the draft advice. He was fine with it going back to committee for further refinement and deferred to the committee's judgement on the matter,

Dan Strom, Benton-Franklin Health District, stated that in review of the document, he found the bullets "difficult to get a handle on," so he suggested creating short title for them. Example titles he created were:

1. Timely Assessment and Response to SST Leaks
2. Development of Proactive Abatement Technologies
3. Information on Abatement Technologies
4. Development of a Formal Leak Mitigation Plan
5. Allocate Budget for Managing SSTs
6. Improved SST Monitoring
7. Involvement of Ecology and Other Experts
8. Assessment and Communication of Cumulative SST Impact

When categorizing the bullets, Dan felt that he supported point #8 the most. He also suggested the removal of "snarl language" within the advice. Referencing an earlier comment from Tony Brooks, he felt that the word "harm" was not appropriate, and "abate the harm from" could instead suggested using "minimize" or "contain." Additionally, "risk" had a negative connotation, so he suggested "possibility" instead. He felt that it was best to act on the advice quickly.

Tony Brooks noted that, in reference to point #4, that the Board should not be asking for more plans, and instead should be insisting upon action. He wanted to get people working on the issue rather than asking for more paper studies. He supported sending the advice back to committee.

Denise Jones thanked the IM team for the work done on the draft advice, commenting that she felt it was well written and understandable. She did not take issue with any of the eight points, nor talking about cost. She felt that they should insist on receiving the appropriate funds from DOE. She accepted sending the advice back to committee but wanted to tell the agencies how the Board felt in a timely manner.

Jan Catrell stated that she had not selected an advice bullet to focus on, but her opinion on the advice overall was that it should focus on asking for tank leak mitigation. She felt it was important that, as new SSTs were discovered to leak, there should be a plan in place to address them. She supported sending the draft advice back to committee.

Amber Waldref, Heart of America Northwest, hoped to clarify within the group that the request for a feasibility study had the overall goal of understanding options and costs. She stated that Heart of America Northwest supported all points of the advice. She wanted to express her appreciation for the work put into the advice and did not "want perfect to be the enemy of the good." She felt it was important for the HAB to make a statement to express the interests of the region, so the TPA agencies understood the broader concerns.

Shelley Cimon stated her support for all the advice points, but noted that, in particular, she wanted to capture what she saw as her own value statements: the need for a mitigation plan and the need for agility. She felt that there was frequently expressed concern over the potential funds being diverted from other

programs to address leaks, but she rarely heard that same concern over the cost once the waste was in the ground. Should the Vitrification Plant be built, but with nothing left to retrieve from the tanks, it would have no value. She wanted to see the advice revised to lead with a value statement that encompassed the ideas of advice points #4 and #5, with the other points supporting that statement.

Liz Mattson noted that she was on the IM team for development of the draft advice and appreciated hearing from so many people on the subject. She felt that there was a path forward for the advice.

Emmitt Jackson stated that he had a lot of faith in the IM team that developed the draft advice. Though he was concerned that they had not heard the opinions of Yakama Nation or the Confederated Tribes of the Umatilla Indian Reservation, he supported submitting the advice as it was written.

Jacob Reynolds stated that he had the opportunity to discuss some of his initial concerns with the draft advice over with the TWC. Though there were some aspects of the advice he preferred to others, he would have preferred the advice to go through as it was that day. However, having heard comments from Max Woods, he agreed that many of the advice points could be subsets of #3. Regarding concerns expressed over budget, he expected that much of the work could be done very inexpensively and stated that the Hanford budget was very large and unfocused.

Tom Galioto stated that, while the draft advice was long in regard to wording, he support each point of advice. To him, it seemed that there was an advantage in submitting the advice immediately to inform the TPA agencies of the HAB's thoughts during negotiations. Otherwise, the next opportunity to submit the advice would be in March, while negotiations were expected to conclude by February. If it did go back to committee, he felt that the primary points of focus should #2, #4, #5, and #6. He supported all activities but felt that selection could have the most impact for change.

Mike Korenko, Grant and Franklin Counties, stated that he would support the advice as it was or a word-engineered version. He noted, however, that he felt discussions faced the issue of categorized thinking. They learned from DOE's update presentation that the water treatment facility would be replaced because the old one would not last. That facility was considered to be site infrastructure, he stated, and so were tank walls, but were thought of differently. He stated that he also thought back to his experience in the commercial sector. Were a commercial entity asked for an action plan per advice point #4, having over 30 years' worth of information on a topic, it would be able to determine the best course of action based on that. He felt that the point #4 lacked urgency, perhaps listing the current actions that could be taken. He hoped that the advice would be more action oriented. He stated that there was always more to be learned, and should be done in a structured manner, but the risk should always be quantified.

Richard Bloom stated that a key point should be development of tools. He felt that all a risk assessment would achieve is a queue of additional lawsuits, diverting more funding to lawyers. He supported advice point #2 and point #5, supporting the ability to address the leaks, as he felt should be expected.

Robert Thompson stated that he felt that the advice should be go back to committee. He also supported points #2 and #5, echoing Richard Bloom's comments. He suggested shortening the advice with an understanding that the advice would have a broader audience than those at the Hanford Site. He noted that the advice would be reviewed by those in Washington DC and carried some weight within Congressional delegations.

Vince Panesko stated that, over the prior several years, the HAB was unable to get its concerns implemented into DOE's plans, as they were often submitted too late. He felt that it was presently a good opportunity to submit the HAB's thoughts, as negotiations were underway. He supported Ecology's efforts and was glad to hear that the agency was already considering many of the issues the HAB raised.

He was not worried about the budget aspects, as it was just advice; the action would not happen until Ecology “brings the hammer down on DOE.” As a point of particular importance, he stated that Congressional delegations are moved when people start complaining. If the Board wanted contingency funding for future tank leaks, he felt the advice was a strong first step to take.

Rob Davis stated that the most important thing to do was getting the message out immediately. He suggested that the advice could potentially be repeated in the future with clarity to the agencies’ plans.

Pam Larson stated that she was passionate about the issue and expressed that to the IM team. For 25 years, she served as the executive director of the Hanford Communities, where it was her task to interface with Congressional committee staff to communicate local priorities. As big as the issue was, she felt that it needed to be addressed realistically, step by step. She felt that advice point #4 made fundamental sense, as well as #5, advocating for investment in technology to get the work done. She stated that the investment had not been made locally or nationally for the technology needed. She suggested that the advice needed to be more succinct as well. The issue was important, she stated, but not immediately important.

Bob Suyama stated that he appreciated the input provided. He expected that, as the draft advice was, he expected that it would be blocked from consensus. Several members expressed a desire to act immediately, but many others wanted it to go back to committee. He noted that he heard “less is more” several times. Some members felt points #2 and #5 were key, while others supported #3 and #4. He stated that the IM team would see what it could do to consolidate those ideas.

#### **Introduction of Environmental Management Site-Specific Advisory Board (EMSSAB)** **Recommendation on Revision of Membership Appointment Process**

Shelley Cimon, as background to the recommendation, explained that the HAB was one of many site-specific advisory boards (SSAB), though the HAB was convened prior to them being chartered under FACA and was unique in its operating structure. The SSAB chairs gather twice a year to discuss each board’s issues, as well as hear discussions from DOE Headquarters (DOE-HQ) representatives on subjects such as funding, liabilities, and challenges faced. When that group meets, instead of producing advice, it produces recommendations. These recommendations are drafted and sent back to each chair’s respective board for a “thumbs up or down” vote. As a result of that process, the HAB would not be wordsmithing the recommendation, only voting to approve it as-is.

The SSAB chairs felt that the membership process was counterproductive to agility, so much so that it was impeding some boards’ ability to meet. In the last year, that membership process resulted in one board only having seven members in good standing while another lacked a chairperson due to lapses in appointment. The HAB experienced similar issues, which handicapped the abilities of the Board and information flow.

As a result, the SSAB chairs decided to develop a recommendation on the issue. She stated that the membership process was long, laborious, and cumbersome, with membership submissions undergoing intense scrutiny. DOE personnel would look at Facebook profiles of potential members, examine who those people interacted with, and many other steps to approval. The SSAB chairs also agreed to attach examples of how each of the boards were impacted. The HAB had gathered impact statements from its membership to submit as well.

### *Board Discussion*

Pam Larsen stated that she had the opportunity to listen to that SSAB chairs' meeting and discussion of the recommendation. She felt that it was a horrible situation and approved of the recommendation.

Bob Suyama felt that the HAB member impact statements provided were good and should be provided as they were. He supported the recommendation.

Steve Wiegman stated his appreciation for the effort Bob and Shelley put forth on the recommendation and impact statements.

Tom Galioto asked if DOE could allow board members to continue their membership until the following membership package was approved, noting that it was a standard government practice. Shelley stated that idea was built into the recommendation.

Rob Davis stated that he was impacted by a lapse in membership, though he felt that his personal impact was small in consideration of the big picture. He supported the recommendation.

Gary Younger noted that, in relation to Tom Galioto's question of being able to extend membership terms, the local DOE was changing the appointment dates to mitigate that issue going forward. Instead of appointments going from July 1<sup>st</sup> through June 30<sup>th</sup>, potentially resulting in a June to October gap in membership, appointment dates would be from October 1<sup>st</sup> through September 30<sup>th</sup> for HAB membership packages going forward.

Tom Sicilia asked if the appointment date change would affect current members. Gary stated that currently appointments would not be affected by the change but would be applicable for appointments going forward. It would take two years for the full Board to be on that rotation.

Susan Leckband stated that the recommendation was well written and timely. She noted that, historically, when the Board agreed on a recommendation, it could be approved on the same day.

### **Introduction of Environmental Management Site-Specific Advisory Board (EMSSAB) Charges on Public Outreach & Best Practices**

Shelley Cimon explained that, in the fall of 2020, the SSABs received two charges, the first asking the SSABs to identify the existing public outreach practices for each of the sites, then using that data to identify gaps and build a best practices document. Due to the complexity of the assignment, Shelley engaged the HAB's Public Involvement and Communications Committee (PIC).

Jeff Burright, PIC Chair, stated that it was the PIC's job to arm Shelley with ideas for responding to those charges. He further clarified the objectives for each charge:

- Identify what were the best practices already in place, as well as improvement opportunities.
- Develop specific public outreach expectations of EMSSAB as it relates to DOE's 10-Year Strategic Vision.

For the first charge, an Excel spreadsheet was used to record the raw data supported by a written set of summary bullet points. Those were shared the following SSAB chairs' meeting. Jeff stated that DOE personnel were pleased with the results and asked that associated white papers be developed.

Shelley stated that Ike White, DOE, told her that DOE-HQ was very pleased with the Excel sheets produced by the HAB and the other boards. She thanked Jeff and the PIC for their contributions.

For the second charge, Shelley explained, she was initially unsure how to contextualize the request of best practices. It was around the summer to fall of 2020 timeframe that the SSAB's were asked to benchmark

those against DOE's 10-Year Strategic Vision. When developing the best practices, they were categorized by the strategic plan, communication, public involvement, and risk communication. She felt that the resulting white paper would seem straightforward when read.

### *Board Discussion*

Steve Wiegman asked if Shelley felt that there was anything resulting from development of those charges that needed to be fulfilled locally, as part of the HAB's role. Shelley stated that the Board might consider forming an IM team to look at the TPA 5-Year Review. Jeff stated that, if the HAB were looking for specific recommendations, those would probably be found in the Excel sheets. The primary points, Jeff felt, were to have DOE get back into "the trust zone," commit to engage the public early, and commit to stakeholder transparency. Steve Wiegman noted that he saw the potential for locally applicable advice that the HAB could pursue and urged that it do so where applicable.

Gerry Pollet stated that, for the record, it should be noted that the Board has provided more extensive advice that was applicable to the northwest region for public involvement than the general principles developed by the EMSSAB. He felt that the HAB's body of work already went beyond what could be drawn from those general principles and that any advice that the HAB should be developed for its specific audience.

Shelley noted that those white papers were a collection and not a consensus product, serving as a "bin" for all the sites across the complex. She stated that Gerry was correct and that it was important to remember the depth of what the HAB has developed for the Hanford Site. She considered that, if anything, efforts might go toward reviving and reinstating what the HAB believed to be important for the Hanford Site. Jeff agreed, stating that it was a compilation effort, perhaps serving as a sort of desk reference for someone at DOE-HQ.

Chris Sutton pointed out that the fourth point under the Communications section could be important for the Hanford Site in the coming years. He read off the point:

"Activities at some sites are long term and have reached the stage where little change is seen during the tenure of a typical SSAB member. Hence, the need for major decisions and recommendations is less or non-existent. Maintaining SSAB member interest is difficult. In this situation, DOE should consider ways to involve the SSABs in less consequential decisions and public outreach. DOE should also consider what types of education might provide a better background for recommendations, decisions, community outreach that will occur in the future."

Chris stated that, as the site moved forward with DFLAW, site operations would eventually fall into a routine where SSAB members might not see much notable change over time. He wondered if there would need to be changes to maintain HAB member interest.

Steve Wiegman was curious as to what sort of response might be expected from the recommendation. He asked if DOE had a commitment to respond. Shelley stated that she was unsure and would take that question to the next SSAB chairs' meeting.

With no further questions, the Board elected to confirm consensus on each of the recommendations. Each were approved.

### **Open Forum**

Steve Wiegman stated that, when considering the agenda for the March 2022 Board meeting, he hoped for the idea of "101" briefings to be rekindled. In particular, he thought that it would be good to understand

how risk was used in decision making. Gary Younger stated that topic had been proposed and was a possibility going forward. Rob Davis asked if there was the potential for that focus to be on risk in relation to leaking tanks. Gary stated that it was intended to be an overview level of the risk process and how risk was used to determine priorities.

Gerry Pollet stated that, in consideration of the next Board agenda, PIC recently held a discussion on the importance of beginning a meeting with a land acknowledgement for tribes and their ceded resources. He asked that the Board receive a 101 briefing on sovereignty, treaty rights related to Hanford, the importance of land acknowledgements, and what was special about Hanford Site resources to their cultures. He stated that the decisions made in relation to the Hanford would affect the health and culture of the regional tribes for thousands of years.

Chris Sutton noted that, regarding the risk of leaking tanks, much of the information on the content of the tank leaks was already publicly available through the Phoenix database (<https://phoenix.pnnl.gov/>). Through that database, users can see the total inventory of contaminants. Additionally, he noted that the Hanford Environmental Information System (HEIS) database included all analytical data for soil and groundwater entered over the last 50 years. He noted that there were no instances of Cesium-137 over the previous 20 to 25 years, per his searches in that database. He felt those tools would be useful when considering tank- and leak-related topics.

Regarding Gerry's comment, Emmitt Jackson recalled the Basalt Waste Isolation Project (BWIP), a project proposed for culturally sensitive lands. He noted that when discussed in public forum, there was a point in which Native American input was provided through government-to-government communications. Emmitt hoped to understand what input was being provided through such communications to see how it compared with HAB views and input. He felt that it would result in the HAB providing better informed input.

### **Board Business**

Gary Younger announced that he recently learned that DOE-HQ was requesting a meeting with the HAB but did not know the intended topics of discussion.

The Board considered potential meeting times. To balance consideration for members' schedules and the difference in time zones for DOE-HQ personnel, the meeting was intended to be held as close to noon as possible. January 18<sup>th</sup>, 2022, 11:00 a.m. to 1:00 p.m. Pacific Time was tentatively scheduled, though it was noted that the Oregon Hanford Cleanup Board would be meeting that same day.

### **Closing**

Steve Wiegman stated that 2021 had been a challenging year for a number of reasons and that he appreciated the Board's efforts in maximizing what could be achieved despite the challenges. He was also appreciative of the support he received in his first year of chairmanship and appreciative of those that continued to participate in the ambiguous process of site cleanup. He believed the HAB to be an important part of that process and that it would continue to be for a long time. He hoped to keep the HAB in a position where it could continue to seek information and face the challenges to come. He appreciated the conversations held over the two days of the meeting, recognizing that difficult topics were faced.

### **Meeting Recording**

Day 1: <https://youtu.be/O1D6p8ERTF8>

Day 2: <https://youtu.be/Wq8SnFl3KsI>

## **Attachments**

Attachment 1: Meeting Agenda

Attachment 2: Draft Meeting Minutes for June Board Meeting

Attachment 3: Draft Meeting Minutes for September Board Meeting

Attachment 4: DOE Update Presentation

Attachment 5: Ecology Update Presentation

Attachment 6: Draft FY22 HAB Work Plan and Calendar

Attachment 7: Draft Advice on Tank Leaks

Attachment 8: Draft EMSSAB Recommendation

Attachment 9: Draft response to EMSSAB Charge #1 – Public Outreach

Attachment 10: Draft response to EMSSAB Charge #2 – Best Practices

## **Attendees**

*Day 1*

### **Board Members and Alternates:**

Becky Holland, Primary	Bob Suyama, Primary	Dan Solitz, Primary
Denise Jones, Primary	Emmitt Jackson, Primary	Esteban Ortiz, Primary
Gerry Pollet, Primary	Jacob Reynolds, Primary	Jan Catrell, Primary
Laurene Contreras, Primary	Maxwell Woods, Primary	Richard Bloom, Primary
Rob Davis, Primary	Robert Waldher, Primary	Shelley Cimon, Primary
Steve Anderson, Primary	Steve Wiegman, Primary	Susan Coleman, Primary
Tom Carpenter, Primary	Tom Galioto, Primary	Tony Brooks, Primary
Bob Legard, Alternate	Chris Sutton, Alternate	Dan Strom, Alternate
Dana Miller, Alternate	David Reeploeg, Alternate	Jeff Burright, Alternate
Jessica Ray, Alternate	Larry Haler, Alternate	Leslie Koenig, Alternate
Liz Mattson, Alternate	Marissa Merker, Alternate	Mason Murphy, Alternate
Michael Korenko, Alternate	Michael Mays, Alternate	Pam Larsen, Alternate
Simone Anter, Alternate	Susan Leckband, Alternate	Tom Sicilia, Alternate
Vince Panesko, Alternate		

### **Others:**

Brian Stickney, DOE	Ryan Miller, Ecology	Abigail Zilar, GSSC for DOE
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Brian Vance, DOE	David Bowen, Ecology	Dieter Bohrmann, CPCCo
Cameron Hardy, DOE	Ginger Wireman, Ecology	Bradford Sharpless, DNFSB
Carrie Meyer, DOE	Dave Einan, EPA	Padraic Fox, DNFSB
Gary Younger, DOE	Roberto Armijo, EPA	Robert Csilag, DNFSB
Geoffrey Tyree, DOE	Earl Fordham, WDOH	Coleen Drinkard, HMIS
Glyn Trenchard, DOE	Tom Rogers, WDOH	Dana Cowley, HMIS
Jennifer Colborn, DOE		Debbie Kelley, HMIS
Laura Caulfield, DOE		Gabriel Bohnee, HMIS
Rich Buel, DOE		Patrick Conrad, HMIS
Stan Branch, DOE		Theresa Bergman, PNNL
		Dan Baide, WRPS
		Joan Lucas, WRPS
		Terese Meyer, WRPS
		Gloria Cummins, Freestone
		Miya Burke, Hanford Challenge
		Lara Harmon, ISMS
		Edward Dawson, TradeWind
		LEM
		Paul Noel
		Steve Olson
		Kelsey Shank, theEDGE
		Wayne Barber, Weapons Complex Monitor
		Jodi Christiansen, HAB Facilitation
		Josh Patnaude, HAB Facilitation
		Olivia Wilcox, HAB Facilitation
		Ruth Nicholson, HAB Facilitation



Day 2

**Board Members and Alternates:**

Bob Suyama, Primary	Dan Solitz, Primary	Denise Jones, Primary
Emmitt Jackson, Primary	Esteban Ortiz, Primary	Gerry Pollet, Primary
Jacob Reynolds, Primary	Jan Catrell, Primary	Laurene Contreras, Primary
Maxwell Woods, Primary	Rob Davis, Primary	Robert Thompson, Primary
Robert Waldher, Primary	Shelley Cimon, Primary	Steve Anderson, Primary
Steve Wiegman, Primary	Susan Coleman, Primary	Tom Galioto, Primary
Tony Brooks, Primary	Amber Waldref, Alternate	Chris Sutton, Alternate
Dan Strom, Alternate	David Reeploug, Alternate	Jeff Burright, Alternate
Jessica Ray, Alternate	Leslie Koenig, Alternate	Liz Mattson, Alternate
Marissa Merker, Alternate	Michael Korenko, Alternate	Michael Mays, Alternate
Pam Larsen, Alternate	Richard Bloom, Alternate	Tom Sicilia, Alternate
Vince Panesko, Alternate		

**Others:**

Gary Younger, DOE	Ginger Wireman, Ecology	Abigail Zilar, GSSC for DOE
Laura Caulfield, DOE	Ryan Miller, Ecology	Coleen Drinkard, HMIS
Stan Branch, DOE	Dave Einan, EPA	Dana Cowley, HMIS
	Geoff Schramm, EPA	Gabriel Bohnee, HMIS
	Roberto Armijo, EPA	Patrick Conrad, HMIS
	Earl Fordham, WDOH	Destry Henderson, WRPS
		Joan Lucas, WRPS
		Therese Meyer, WRPS
		Miya Burke, Hanford Challenge
		Wayne Barber, Weapons Complex Monitor
		Josh Patnaude, HAB Facilitation
		Olivia Wilcox, HAB Facilitation
		Ruth Nicholson, HAB Facilitation

Note: Participants for this virtual meeting were asked to sign in with their name and affiliation in the chat box of Microsoft Teams. Not all attendees shared this information. The attendance list reflects what information was collected at the meeting.

DRAFT